Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_

HW#69: Day 2 - AAS, **SSA, AAA**, HL

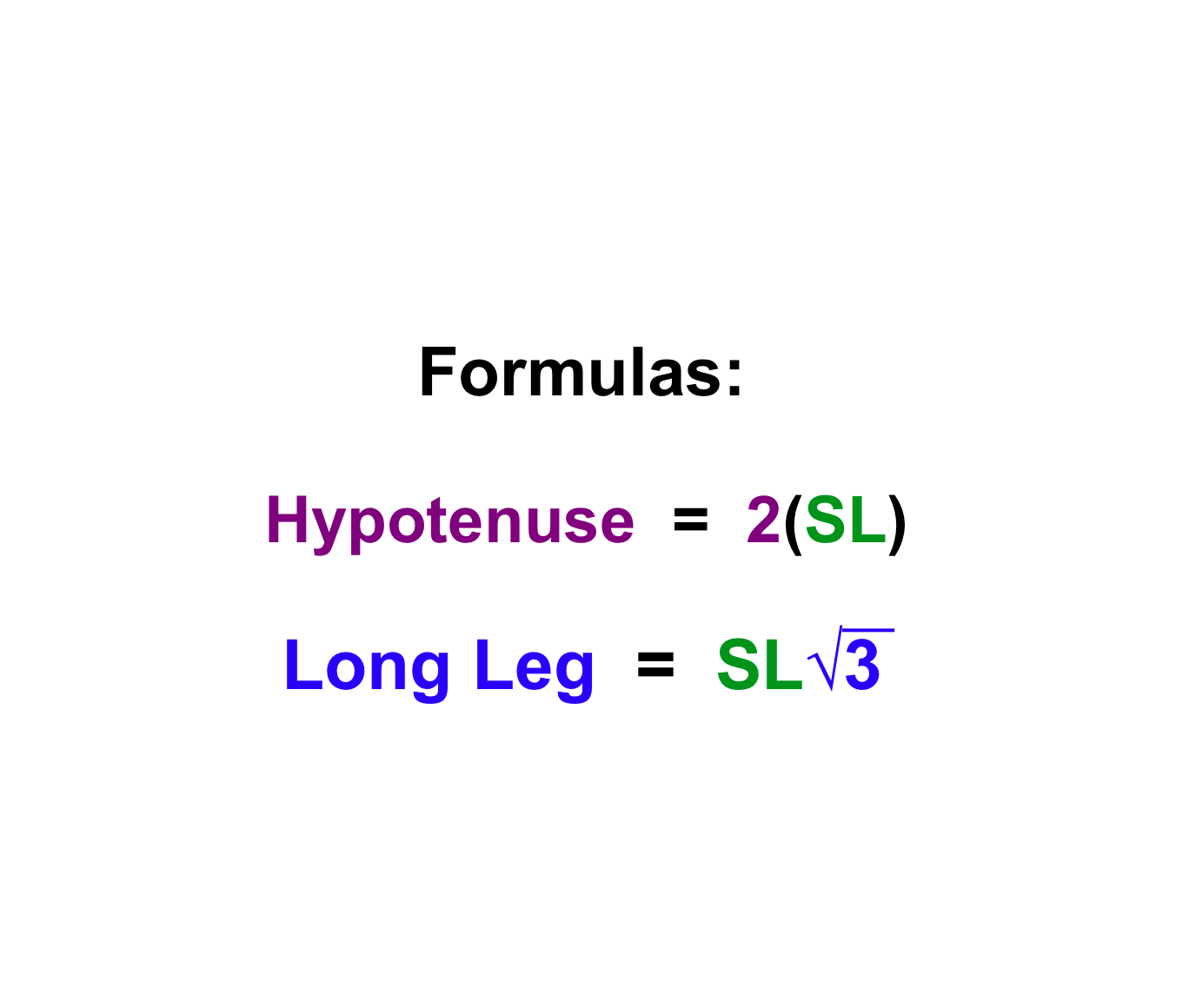
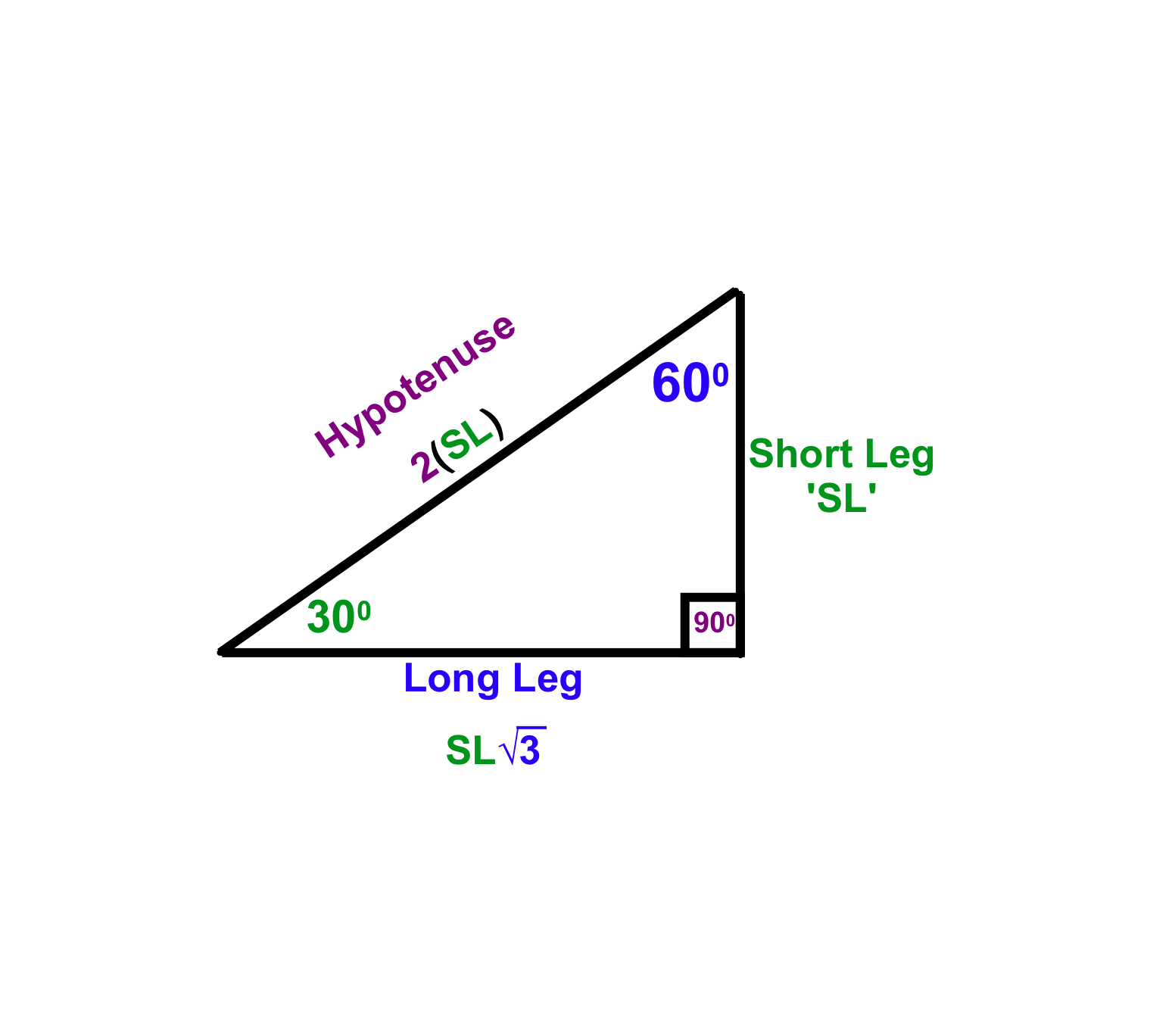
Geometry FORM A

Due Date: Wednesday, February 20th, 2013

**Failure to show work on all problems or use complete sentences will result in a LaSalle.**

For #1- 5, determine if the two triangles are congruent. If so, write a congruency statement and identify what postulate is needed to prove the congruency. If it’s not congruent, explain *why*.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1)  A  B  C  D  E   |  |  |  | | --- | --- | --- | | Angle or Side? | Statement | Reason | |  |  |  | |  |  |  | |  |  |  | |  |  |  |   Congruent: Yes/No  Reason:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 2)  D  E    B  A  A  C   |  |  |  | | --- | --- | --- | | Angle or Side? | Statement | Reason | |  |  |  | |  |  |  | |  |  |  | |  |  |  |   Congruent: Yes/No  Reason:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  A | | | 3)  E  D  C  B   |  |  |  | | --- | --- | --- | | Angle or Side? | Statement | Reason | |  |  |  | |  |  |  | |  |  |  | |  |  |  |   Congruent: Yes/No  Reason:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 4)  D  A  E    F  C  B   |  |  |  | | --- | --- | --- | | Angle or Side? | Statement | Reason | |  |  |  | |  |  |  | |  |  |  | |  |  |  |   Congruent: Yes/No  Reason:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | 5)   |  |  |  | | --- | --- | --- | | Angle or Side? | Statement | Reason | |  |  |  | |  |  |  | |  |  |  | |  |  |  |     B  C  D  E  Congruent: Yes/No  Reason:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | |
| *Directions:* Classify each triangle by its angles and sides.  **Sides**: Equilateral, Scalene, Isosceles **Angles**: Acute, Obtuse, Right, Equiangular | | | | |
| 6a)  b) | | | 7a)  b) | |
| 8) Find the missing angle: (Exterior Angle Theorem)    **66 + x = 98** | | | 9) Find the **exterior angle**: | |
| 10)   |  |  |  | | --- | --- | --- | | Angle or Side? | Statement | Reason | |  |  | gjven | |  |  | given | |  |  | given | |  | AE = CE |  | |  | DE = BE |  | | Congruent: Yes/No  Reason:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | |     and | | | | |
| 11) Classify the triangle as scalene, isosceles, or equilateral from the given vertices.  **A(4, 7), B(6, 2), C(5, –2)**  Find the **distances** of:  **AB BC AC** | | | | |
| 12) Is the triangle in #11 a right triangle?  *Longest side = Hypotenuse (C)* ***a2 + b2 = c2***  If the triangle is a right triangle, what is the area? **A = ½ (h·b)** | | | | |



HW#70: 30-60-90 Triangles

Geometry FORM A

Due Date: Friday, February 22nd, 2013

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

**Failure to show work on all problems or use complete sentences will result in a LaSalle.**

|  |  |
| --- | --- |
| 1) Find the value of x and y. Sample Problem    **Short Leg = 9 Long Leg = y Hypotenuse = x**  **Hypotenuse = 2(SL) Long Leg =**  **x =** 2(**9**) = 18 **y =** 9 | 2) Find the value of x and y. Sample Problem    **SL = y**  **SL = 1.5**  **y = 1.5**  **LL = x**    = x    **Hypotenuse = 3**  **2(SL) = 3**    **SL = 1.5** |
| 3) Find the value of u and v.  **SL = v LL = 4 Hypotenuse = u**  **Hypotenuse = 2(SL) Long Leg =** | 4) Find the value of x and y.    **SL = v LL =**  **Hypotenuse = x**  **Hypotenuse = 2(SL) Long Leg =** |
| 5) Find the value of x and y.    **SL = y LL = 10 Hypotenuse = x**  **Hypotenuse = 2(SL) Long Leg =** | 6) Draw a 30-60-90 triangle. What is the relationship between the short leg, long leg and hypotenuse? |
| 7) Find the value of a and b.    **SL = b LL = 6 Hypotenuse = a**  **Hypotenuse = 2(SL) Long Leg =** | 8) Find the value of f, g and h.    **SL = 8 LL = f Hypotenuse = 16**  **Hypotenuse = 2(SL) Long Leg =** |
| 9) Use the figure to the right to complete the table below.   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **(SL) a** | 9 |  |  | 11 |  | | **(LL) b** |  | 9 |  |  |  | | **(Hyp) c** |  |  |  |  | 16 | |  |
| 10) What is the sum of the values of x that satisfy the equation?   1. Factor (3x – 2) (x + \_\_\_ ) 2. Solve twice 3. Add solutions | 11) Compute  if and .  Plug g(x) into f(x) f(x) = 3 + 5x  f(g(x)) = 3 + 5(7x -3) |
| 12) Triangle JRF is *Isosceles*. If angle J is a base angle with a measure of 45, what is the measure of the other base angle R? | 13) Michelle stands at a city block with coordinates **(-3, 6).** Alex stands on the corner of a mall with coordinates **(4,7)**. What is the distance between the two of them?  d = |
| 14) The expression  is defined for all values **except**? (When is a radical expression UNDEFINED?) | 15) The lengths of the corresponding sides of 2 similar right triangles are in the ratio of 2:3. If the hypotenuse of the smaller triangle is 5 inches long, how long, in inches, is the hypotenuse of the larger triangle? Set up a proportion, using:  2  3  5  ?  small triangle:    large triangle: |
| 16) On the standard (x, y) coordinate plane, line segment AB has endpoints A(2, 3) and B(- 5, 1).  If (a, b) is the midpoint, what is a + b?  Midpoint =   1. Find midpoint 2. Add x and y values | 17) Simplify:  = ------------- |



HW#71: 45-45-90 Triangles

Geometry FORM A

Due Date: Monday, February 25nd, 2013

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

**Failure to show work on all problems or use complete sentences will result in a LaSalle.**

Hypotenuse =  *leg =*

|  |  |
| --- | --- |
| 1. Find the value of each variable. Write answers in the simplest radical form. Sample problem:     Hypotenuse =      **7 = *leg = x = v*** | 1. Find the value of each variable. Write answers in the simplest radical form. Label the legs & hypotenuse.     *leg =* |
| 1. Find the value of each variable. Write answers in the simplest radical form. Label the legs & hypotenuse.   Hypotenuse = | 1. Find the value of each variable. Write answers in the simplest radical form.     Hypotenuse = |
| 1. Find the value of each variable. Write answers in the simplest radical form. Label the legs & hypotenuse.   *leg =* | 1. Find the value of each variable. Write answers in the simplest radical form. Find the value of each variable. Write answers in the simplest radical form.   Hypotenuse = |
| 1. Find the value of each variable. Write answers in the simplest radical form. Label the legs & hypotenuse. Label the legs & hypotenuse.   Hypotenuse = | 1. Find the value of each variable. Write answers in the simplest radical form. Label the legs & hypotenuse. |
| 9) What is the sum of the values of x that satisfy the equation ?  1. factor ( \_\_\_ + \_\_\_ )( \_\_\_ -\_\_\_ )  2. Solve twice  3. Add solutions | 11) Compute  if and .  Plug g(x) into f(x) |
| 12) Triangle JRF is *Isosceles*. If angle J is a base angle with a measure of 25, what is the measure of the other base angle R?  *Iscosceles: \_\_\_\_ equal sides / \_\_\_\_ equal angles* | 13) Jolanta stands at a city block with coordinates (-9, 0). Desiree stands on the corner of a mall with coordinates (0,7). What is the distance between the two of them?  d = |
| 14) The expression  is defined for all values except? (When is a radical expression UNDEFINED?) | 15) The lengths of the corresponding sides of 2 similar right triangles are in the ratio of **5:6**. If the **hypotenuse of the smaller triangle is 3** inches long, **how long, in inches, is the hypotenuse of the larger triangle**? Label Triangles. Set up Proportion. |
| 16) On the standard (x, y) coordinate plane, line segment AB has endpoints A(9, 0) and B(- 5, -2). If (a, b) is the midpoint, what is a + b?  *Midpoint =*   1. *Find midpoint* 2. *Add x and y values* | 17) Simplify: |